

ELECTRONIC EXCHANGE

VOLUME I, ISSUE 5

MAY 1981

CHICAGO EDITION

FREE

FREE???

Last month our editorial discussed our views about circulation. Since then, my partner came up with a fantastic idea. He stated "If you really want to increase circulation, why don't you give it away."

I immediately shoved him into the closet and told him that I would not let him out until he regained his senses. He kept on mumbling for hours. After a little thinking about what he said, I came to the conclusion that either he was right or we're both crazy. In either case, we did decide to make the newsletter free.

At this point, you might be wondering what we're trying to accomplish. We want to become a major source for electronic news in the Chicagoland area. Also, we wish to provide a reasonable means through which people and local businesses can advertise their electronic goods and services.

In the future, we would like to have monthly columns for each of the major electronic hobbyist fields, and we have plans for developing an on-line bulletin board system that would display ads received for publication. Once we have accomplished these goals, we plan to expand to other cities.

Our issues reach our distributors by the first of each month, so get there soon to pick up your next copy. If you don't feel like rushing to the store each month you can still obtain this publication by completing the subscription form on the back page.

THIS ISSUE:

Comsat's DBS Proposal Magnavox Odyssey² New Atari Games

I have to go now. My partner says its time to visit the psycho-therapist. Last time, he let us weave baskets.

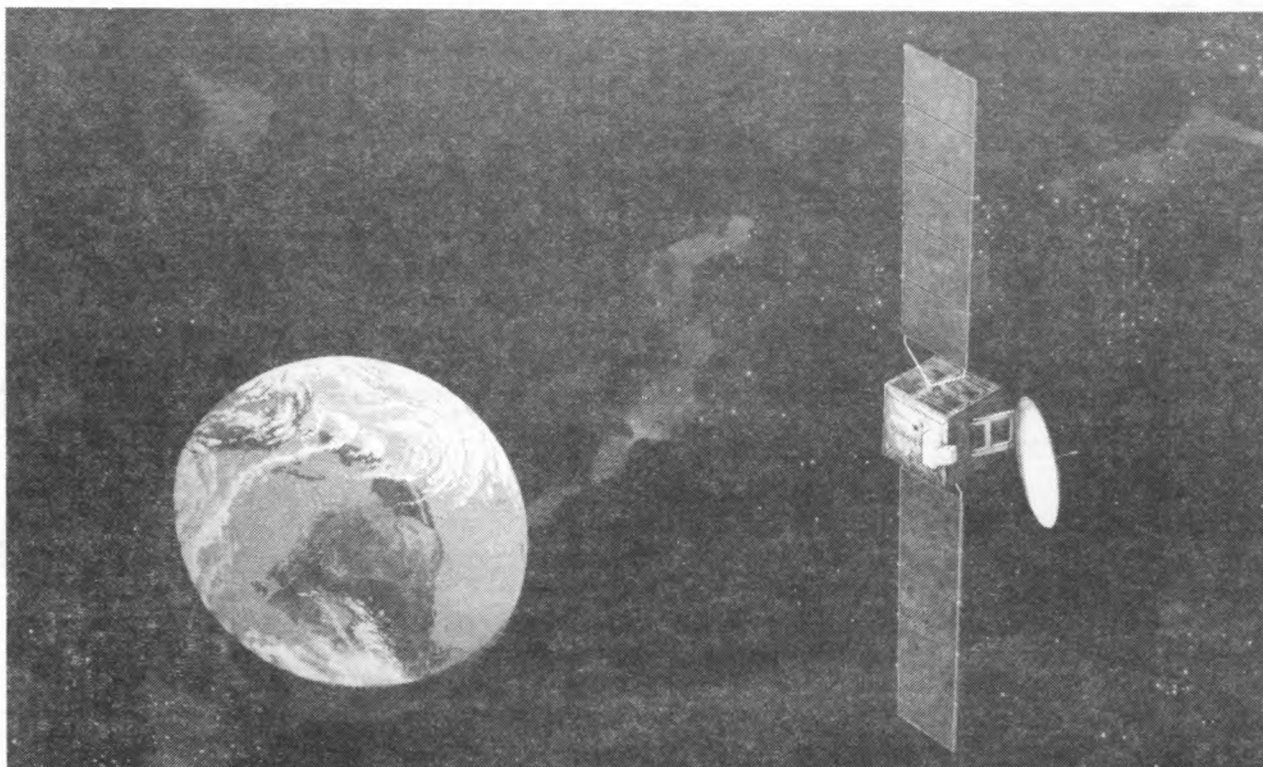
READER FEEDBACK

Melvin Wilson, one of our readers, recently suggested that he would like to see a hobbyists column in our newsletter. He is referring to little circuits that either have a practical application or just something that makes strange noises.

We will be glad to publish anyones plans for these electronic gadgets. Just send us a schematic and a brief description of the circuit.

Also, Melvin recommends to anyone that tinkers with IC's, a document published by Radio Shack entitled "Engineer's Notebook". The book includes applications for popular digital and analog IC's. The notebook (RS# 276-5001) retails for \$2.49.

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COMSAT'S FCC PROPOSAL

Since its creation in 1963, the Communications Satellite Corporation (COMSAT) has been a leader in the development and application of satellite communications. From its instrumental role in successfully establishing a global satellite communications system, COMSAT has grown into a company dedicated to increasing the practical and profitable applications of satellite communications. Today, this private, shareholder-owned corporation, together with its several subsidiaries, continues to move in exciting directions.

Satellite Television Corporation (STC), a subsidiary of COMSAT, submitted an application to the Federal Communications Commission (FCC) on December 17, 1980. STC has proposed to offer the public multiple channels of subscription television service beamed directly from broadcasting satellites to individual homes.

STC would provide a three-channel pay-TV service, without commercials, direct to subscribers. The service will offer a variety of movies, popular concerts, sports, children's, cultural, public affairs, educational and special

interest programming. This programming would make a major contribution toward fulfilling growing consumer demand for more varied video offerings.

Beginning three to four years after FCC approval, STC's pioneering venture would provide the United States with its first direct broadcast satellite (DBS) television service. Even though several European countries as well as Japan and Canada are actively working toward DBS systems, STC, with expeditious FCC approval, could help maintain traditional U.S. leadership in the rapidly developing field of satellite communications.

FCC APPLICATION DETAILS

In its December application, STC requested FCC permission to construct satellites for the first phase of SSTV service. Two satellites -- one operational and an in-orbit spare -- would cover an area roughly corresponding to the Eastern Time Zone of the United States. Other satellites would follow, covering all 50 states.

The satellites would broadcast in the super-high frequencies (12 gigahertz). Signals would be unscrambled (similar to ON-TV here in Chicago) and transmitted to homes where they would be unscrambled by

a small addressable electronic unit connected to a subscriber's conventional TV set.

In preparation for its application and as a means of determining the problems, needs and interests of its potential audience, STC has undertaken an extensive ascertainment survey, including a series of over 200 personal interviews with leaders of national and local organizations, representing all segments of society.

PROGRAMMING

In its FCC application, STC outlined its general programming plan, recognizing that continued market research will be needed to assure that the programming offered in the mid-80's meets the desires of the public at that time. In general, the service will offer three channels of commercial-free video programming. One channel would operate 24 hours per day and the other two for 15 hours or more per day. Present plans call for the following programming on each channel:

- "Superstar" Channel A:
General entertainment such as major movies, popular concerts, theatre and family entertainment.
- "Spectrum" Channel B:
Children's programs, film classics, performing arts and cultural attractions, and public affairs.
- "Viewer's Choice" Channel C:
Sports, adult education, lecture hall and experimental theatre.

A major feature of the multi-channel SSTV service would be the ability to "counterprogram", meaning that different types of programming would appear simultaneously on each of the three channels. This will allow STC to meet the majority of audience interests at the most convenient times.

Much of STC's programming would be obtained from traditional producers, but the company is also committed to seeking new production

sources such as museums, educational institutions, experimental theatres and professional organizations. Because STC will be able to gather relatively small, scattered groups of viewers with special interests into a larger audience, STC plans to place major emphasis on "narrowcasting", (special interest programming). Some of its programming would be for minority viewers, and STC also plans to take special cognizance of minority needs in its programming. In this vein, the SSTV system will be able to offer video simultaneously with audio transmissions in two different languages.

In addition to second language capability, STC optional service features would include stereo sound, teletext and closed captioning for the hearing impaired. Also, the company plans to conduct various types of high definition television experiments with a view to hastening the development of nationwide technical standards for this new and improved service.

The overall program service would be available to subscribers for a monthly fee competitive with those charged for existing pay-TV services. Additional fees would be paid for optional services and for any special programs offered on a pay-per-program or pay-per-series basis.

The basic three-channel service and equipment leased from STC would cost about \$25 per month.

HOME RECEPTION

The home receiving equipment would be bought or leased by subscribers. Any normal television set could be equipped to receive the SSTV programming. STC plans to establish an extensive network of local authorized dealers to sell or lease, install and maintain receiving equipment. In addition, it is expected that independent companies would perform these functions. Monthly program fees, and, where applicable, equipment rental fees would be paid directly to STC.

The receiving equipment would be essentially identical throughout



the country, even though it would be built by several competing manufacturers. Receiving antennas could be mounted on houses or at other convenient locations and would need an unobstructed line of sight to the satellite. A typical installation would have a 2.5 foot, dish-type antenna mounted on the subscriber's rooftop and attached, by cable, to a standard TV set.

Where a clear view is not available because of tall buildings or trees, or where apartment dwellings desire a shared antenna, various community or remote antenna locations would be possible. Reception quality should equal that possible from cable TV. Only torrential rain conditions would cause any perceptible ("snowy") interference in picture quality.

Satellites:

- First phase, covers Eastern service area; one operating and one backup satellite
- Full national service would use four operating and two backup satellites
- Type -- PAM-D class satellites
- High-powered -- Minimum of 1700 watts; traveling wave tubes with minimum of 185 watts
- Uplink: 17 GHz band
Downlink: 12 GHz band
- Proposed orbital location, 115 degrees West longitude for Eastern service area satellite

Satellites: (cont.)

- Full nationwide service satellites would be 20 degrees apart in the geostationary arc (115 degrees W, 135 degrees W, 155 degrees W and 175 degrees W longitude)

Ground Facilities:

- Broadcast center and satellite control facility near Las Vegas, Nevada
- Backup transmission and control facilities at Santa Paula, California (to provide backup control)
- Engineering support facilities at Washington, D.C.

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NEW GAMES FROM ATARI

Four new ways to challenge and excite even the most savvy video games enthusiasts - Asteroids *, Warlords *, Othello **, and Video Pinball * game cartridges have been introduced by Atari. Just like the 38 other video games in Atari's ever-expanding library, these games are for use with the home Video Computer System.

• Asteroids is the home-video version of the star attraction in arcades across the country. The game plot: the player's spaceship is trapped in a treacherous asteroid belt and points are scored by destroying onrushing asteroids and fighting off enemy spaceships.

The player's ship has four lives and one life is lost whenever the ship gets hit. But the player is in control - one can regulate asteroid speed, enter hyper space, put shields up or flip the spaceship 180 degrees depending on the game variation selected. This exciting and enjoyable galactic-battle game is slated for delivery in June.

• Warlords is a game of defense and capture with a medieval theme. A king hides behind castle walls in each corner of the TV screen. Each warlord's role is to protect his king, defend his castle and destroy the opposing kingdoms. The battle becomes more difficult with an option that allows players to capture the ball as well as deflect it. Double shields can also be employed.

Warlords can be played by one to four players, but when less than four players are involved, the computer will defend the unprotected castles. Estimated delivery of the game is set for August.

• Video Pinball offers all the excitement of a real arcade pinball game, complete with sound effects. A player can launch the ball with varying speeds, activate

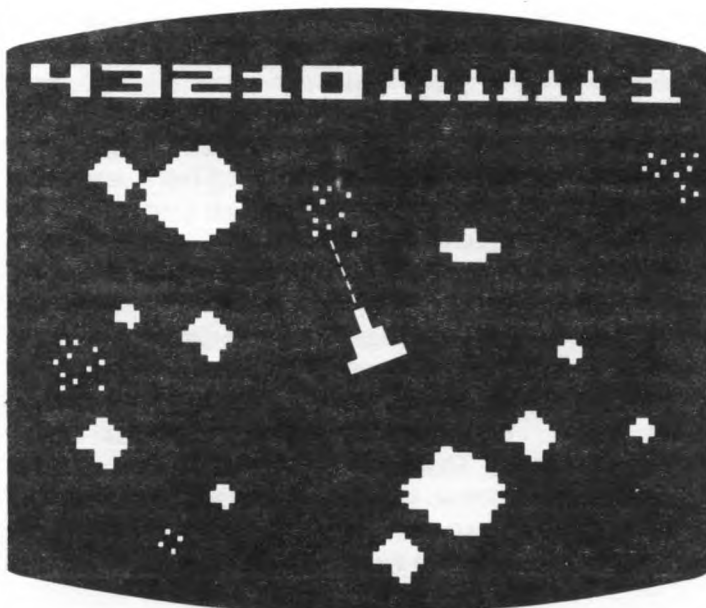
one or both flippers, nudge the ball as if tilting the machine. When too much "nudge" is applied, the game signals "TILT" and the ball is lost.

Video Pinball has all the features a veteran pinball player would hope for--bumpers, spinners, drop targets, roll overs, a special and bonus multipliers. The game is for one or two players.

• Othello** was invented only a few years ago, yet has quickly become one of the world's classic strategy games. The object of the game is deceptively simple - capture more squares on the board than your opponent - but the strategy is complex. To capture squares occupied by the opponent, one must sandwich them between one's own pieces in either a horizontal, vertical or diagonal line. The score can "see-saw" back and forth, before a single strategic move brings victory. The game ends when all squares are captured.

In each of the four variations, a game can be set up to suit the player, then switched to regular competition to play out the set up.

Othello and Video Pinball cartridges are currently available in retail stores.



ASTEROIDS™ Game Program™

* Atari, Inc. trademark
** Othello is a registered trademark of CBS, Inc. for its strategy disc game and equipment.



ODYSSEY2 BY MAGNAVOX

Odyssey-2 is a sophisticated, inexpensive, video computer game that offers challenge, excitement, and fun for the entire family.

The unit as shown consists of a complete alpha-numeric monoplane keyboard which commands the Magnavox microprocessor video system. Two joystick controllers, used for arcade and sports games, are also included. These controllers have nine distinct positions plus an action button. When you purchase an Odyssey-2, you also receive two plug-in game cartridges. One cartridge contains two arcade games: Speedway and Spinout. The second cartridge is a mental blockbuster called Crypto-Logic.

Odyssey-2 displays colorful graphics, and it can produce a wide range of tones and sounds that are played through your TV speaker.

Everything you need to operate the Odyssey-2 is included with the system. The plug-in cartridges, which add new games, are the only extras you buy.

The suggested retail price of the Odyssey-2 is \$179.95.

CARTRIDGES

Magnavox has four categories for the Odyssey-2 plug-in cartridges: Sports, Arcade, Educational and a new Master Strategy Series.

Most cartridges are priced at \$19.95, and there are approximately 27 of them currently available. More games are being developed for the future. Many of the cartridges contain two or more totally different games to play, and some have selectable skill levels.

A new cartridge called "The Quest for the Rings" is the first in a series of Master Strategy games. This unique video game utilizes a gameboard to develop the master strategy. The players then use the computer keyboard to select mythical situations and creatures. A high degree of skill is required to win in this colorful world of on-screen video action. This cartridge should be currently available. The retail price is \$49.95.

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Phone No.	System Type	Name & Location
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255-6489	CLAH-NET	Computerland, Arl. Hts.
289-1198 *	NET	NIBS Streamwood
291-1619 *	ABBS	Ski Machine/Mothers- (Vidio Info)
295-6926 *	PMS	NIAUG Lake Forest
321-1432	ABBS	G.E.Games 7 P.M.-11:30 P.M. Weekends
338-8827 *	NET	Apple Info.
359-9450	NBBS	Public BBS Games, Palatine
384-4762 *	RAPH	Remote Apple CP/M, Chicago
420-7995	ABBS	Il. Micrcomputers, Inc. Naperville
475-4884 *	ABBS	GameMaster Evanston
537-7063 *	ABBS	C.O.D.E. (consultants) Wheeling
545-8086 *	CBBS	Ward & Randy Chicago
743-8176 *	F6S	Games, Chicago
782-8180 *	FORM-80	EBG & Associates, Chicago
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882-9237	NET	E.I.E. Roselle
949-6189	CP/M	TC-80, Mundelein
955-4493	CP/M	Chicago
967-0453	ABBS	Compushop, Morton Grove

*=24-hour systems

ELECTRONIC EXCHANGE COMMERCIAL AD RATES

(PRE-PAID)

— DISPLAY AD RATES:

The prices listed below are for camera-ready line work only.

SIZE	INCHES	1 ISSUE	3 ISSUES
FULL PAGE	8x10	\$100.00	\$ 80.00
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1/3 PAGE	8x3.3	\$ 48.00	\$ 38.40
1/4 PAGE	4x2.5	\$ 36.00	\$ 29.00

Prices for photo work and preparation for artwork depend on the quality of the originals, the amount of copy, and number and type of illustrations.

CALL: 537-8555

NOTICE

We at the ELECTRONIC EXCHANGE intend to provide our readers with the lowest possible cost media for information exchange and advertising. With this goal in mind, our articles are based on facts and actual experiences and are accurate to the best of our knowledge.

ELECTRONIC EXCHANGE reserves the right to refuse ads that do not conform to our standards.

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COMPUTER GROUPS

(New members always welcome)

ATARI

Chicago Atari user group. 1 North Wacker, Room 214. Call Larry Hitz at 727-4206 (weekdays) and 323-8962 (weekends).

CACHE

Chicago Area Computer Hobbyist Exchange

Special interest groups for: PET, TRS-80, INTERACT, PASCAL, LSI-11, 68XX, BALLY, FORTH, NORTHSTAR, APPLE, CPM/COMM -- Meet 3rd Sunday each month at 3300 N. Campbell (Devry Tech), at 11:00 A.M. Call 849-1132.

CHICATRUG

Chicago TRS-80 users group. Meet 3rd Wednesday each month at 203 N. Wabash, Rm 110, at 6:00 P.M. Call 782-9750, 782-8180 (modem).

COUNTY OF LAKE APPLE CLUB

Meet 3rd Thursday of each month at Computerland of Mundelein, 1500 South Lake St. at 6:30 P.M. Call Steve at 367-5015.

DAUG

Dupage Apple User Group. Meet 2nd Tuesday of each month at Lincoln Center in Downers Grove. Modem 789-0499.

NIAUG

Northern Illinois Apple Users Group. Meet 1st Saturday of each month at Harper Collage, Building E, Room 106. Call Dave at 295-6078 or 295-6926 (modem).

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COMPUTERLAND, 1500 South Lake, Mundelein, Il. (949-1300)
COMPUTERLAND, 9511 Milwaukee, Niles, Il. (967-1764)
DATA DOMAIN, 1612 E. Algonquin Rd., Schaumburg, Il. (397-8700)
EDI, 4900 Elston, Chicago, Il. (283-4800)
ERICKSON COMMUNICATIONS, 5456 N. Milwaukee, Chicago, Il. (631-5181)
HEATHKIT ELECTRONICS, 3462 Devon Ave., Lincolnwood, Il. (583-3920)
MIDWEST MICROCOMPUTERS, 708 South Main, Lombard, Il. (495-9889)
OLSON ELECTRONICS, 4101 Milwaukee Ave., Chicago, Il. (545-7336)
OLSON ELECTRONICS, 6231 Dempster, Morton Grove, Il. (966-6700)
645 ELECTRONICS, 645 Wheeling Rd., Wheeling, Il. (537-0280)
SPECTRONICS, 1009 Garfield, Oak Park, Il. (848-6777)
TEAM ELECTRONICS, Rt. 62 & Lake Cook Rd., Algonquin, Il. (658-8600)
TRI-STATE ELECTRONICS, 200 W. N/W. Hwy., Mt. Prospect, Il. (255-0600)
VIDEO ETC., 465 Lake Cook Plaza, Deerfield, (498-9669)



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